[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0360; Directorate Identifier 2013-NM-033-AD; Amendment 39-17591; AD 2013-19-09]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are superseding airworthiness directive (AD) 2012-26-51 for all Airbus Model A318, A319, A320, and A321 series airplanes. AD 2012-26-51 required revising the airplane flight manual (AFM) to advise the flightcrew of emergency procedures for addressing angle of attack (AoA) sensor blockage, and also provided for optional terminating action for the AFM revision, which involves replacing AoA sensor conic plates with AoA sensor flat plates. This new AD requires replacing AoA sensor conic plates with AoA sensor flat plates, and subsequent removal of the AFM revision. This AD was prompted by a determination that replacement of AoA sensor conic plates is necessary to address the identified unsafe condition. We are issuing this AD to prevent reduced control of the airplane.

DATES: This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of January 24, 2013 (78 FR 1723, January 9, 2013).

ADDRESSES: You may examine the AD docket on the Internet at http://www.regulations.gov or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone (425) 227-1405; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to the specified products. The NPRM was published in the Federal Register on May 2, 2013 (78 FR 25666), and proposed to supersede AD 2012-26-51, Amendment 39-17312 (78 FR 1723, January 9, 2013). The NPRM proposed to correct an unsafe condition for the specified products. The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2013-0022, dated

February 1, 2013 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for the specified products.

The MCAI states:

> Recently, an Airbus A330 aeroplane equipped with Angle of Attack (AoA) sensors with conic plates installed, experienced blockage of all sensors during climb, leading to autopilot disconnection and activation of the alpha protection (Alpha Prot) when Mach number was increased.
>
> Based on the results of the subsequent analysis, it is suspected that these conic plates may have contributed to the event. Investigations are on-going to determine what caused the blockage of these AoA sensors.
>
> Blockage of two or three AoA sensors at the same angle may cause the Alpha Prot of the normal law to activate. Under normal flight conditions (in normal law), if the Alpha Prot activates and Mach number increases, the flight control laws order a pitch down of the aeroplane that the flight crew may be unable to counteract with a side stick deflection, even in the full backward position.
>
> This condition, if not corrected, could result in reduced control of the aeroplane.
>
> AoA conic plates of similar design are also installed on A320 family aeroplanes, and installation of these AoA sensor conic plates was required by EASA AD 2012-0236, making reference to Airbus Service Bulletin (SB) A320-34-1521 for in-service modification.
>
> That requirement was deleted by EASA AD 2012-0236R1 [http://ad.easa.europa.eu/blob/easa_ad_2012_0236_R1.pdf/AD_2012-0236R1_1].
>
> To address this potential unsafe condition on A320 family aeroplanes, Airbus developed an "AOA Blocked" emergency procedure, published as a temporary revision (TR) of the Airplane Flight Manual (AFM), to ensure that flight crews, in case of AoA sensors blockage, apply the applicable emergency procedure.

> Consequently, EASA issued Emergency AD 2012-0264-E [http://ad.easa.europa.eu/blob/easa_ad_2012_0264_E_superseded.pdf/EAD_2012-0264-E_2] [which corresponds to FAA AD 2012-26-51, Amendment 39-17312 (78 FR 1723, January 9, 2013)] to require amendment of the AFM by incorporating the Airbus TR.
>
> Since that [EASA] AD was issued, Airbus published approved instructions to re-install AoA sensor flat plates on A320 family aeroplanes.
>
> For the reasons described above, this [EASA] AD retains the requirements of EASA AD 2012-0264-E which is superseded, and requires installation of AoA sensor flat plates, after which the AFM operational procedure can be removed.

You may obtain further information by examining the MCAI in the AD docket.

Comments

We gave the public the opportunity to participate in developing this AD. We have considered the comments received.

Support for the NPRM (78 FR 25666, May 2, 2013)

The Air Line Pilots Association International (ALPA) stated that it supports the installation of the AoA sensor flat plates.

United Airlines (UAL) stated that it concurs with the replacement of the AoA sensor conic plates with AoA sensor flat plats.

Request to Retain AFM Procedure

ALPA requested that we retain the AFM procedure. ALPA stated that if an AoA failure were to occur, the AFM procedure would be useful for flightcrew reference.

We disagree with the commenter's request. The AOA conical plates have been identified as the root cause of the unsafe condition. The AFM procedure was an interim

corrective action to mitigate the immediate risks associated with installation of conical plates. Based on the service history and our risk assessment, we have concluded that the AFM procedure associated with installation of conical plates is not required after the installation of AOA sensor flat plates. We have not changed this final rule in this regard.

Request to Clarify Installation Method

UAL requested clarification on the intent and details of the installation method specified in paragraph (j)(2) of the NPRM (78 FR 25666, May 2, 2013). UAL suggested that we revise the NPRM installation method from doing the installation in accordance with a method approved by either the Manager, International Branch, ANM–116, Transport Airplane Directorate, FAA; or the EASA (or its delegated agent); to using a method stated in an applicable section of the airplane maintenance manual.

We agree that clarification is necessary. The intent of paragraph (j)(2) of this final rule is that operators or Airbus use the procedures specified in paragraph (o) of this final rule to either apply for a method of compliance for accomplishing the installation, or for Airbus to provide maintenance procedures to operators for installation of flat conical plates approved by EASA or approved under EASA design organization approval. We have not changed this final rule in this regard.

Conclusion

We reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting this AD as proposed–except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (78 FR 25666, May 2, 2013) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (78 FR 25666, May 2, 2013).

Costs of Compliance

We estimate that this AD affects 100 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
AFM revision [actions retained from AD 2012-26-51, Amendment 39-17312 (78 FR 1723, January 9, 2013)]	1 work-hour X $85 per hour = $85	$0	$85	$8,500
Flat plate installation and removal of AFM revision [new action]	7 work-hours X $85 per hour = $595	$0	$85	$59,500

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

"Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;

2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the MCAI, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2012-26-51, Amendment 39-17312 (78 FR 1723, January 9, 2013), and adding the following new AD:

2013-19-09 Airbus: Amendment 39-17591. Docket No. FAA-2013-0360; Directorate Identifier 2013-NM-033-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD supersedes AD 2012-26-51, Amendment 39-17312 (78 FR 1723, January 9, 2013).

(c) Applicability

This AD applies to the Airbus airplanes listed in paragraphs (c)(1) through (c)(4) of this AD, certificated in any category, all manufacturer serial numbers.

(1) Airbus Model A318-111, -112, -121, and -122 airplanes.

(2) Airbus Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes.

(3) Airbus Model A320-111, -211, -212, -214, -231, -232, and -233 airplanes.

(4) Airbus Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 34, Navigation.

(e) Reason

This AD was prompted by a determination that replacement of angle of attack (AoA) sensor conic plates is necessary to address the identified unsafe condition. We are issuing this AD to prevent reduced control of the airplane.

(f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

(g) Retained Airplane Flight Manual (AFM) Revision with New Exception

This paragraph restates the requirements of paragraph (g) of AD 2012-26-51, Amendment 39-17312 (78 FR 1723, January 9, 2013), with a new exception. Except as specified in paragraph (k) of this AD, for airplanes on which an AoA sensor conic plate has been installed in production by Airbus modification 153213 or 153214, or in-service as specified in Airbus Mandatory Service Bulletin A320-34-1521, dated May 7, 2012; or Revision 01, dated September 12, 2012: Within 5 days after January 24, 2013 (the effective date of AD 2012-26-51), revise the Emergency Procedures of the Airbus A318/A319/A320/A321 AFM by inserting Airbus A318/A319/A320/A321 Temporary Revision (TR) TR286, Issue 1.0, dated December 17, 2012, to advise the flightcrew of emergency procedures for addressing AoA sensor blockage. When the information in Airbus A318/A319/A320/A321 TR TR286, Issue 1.0, dated December 17, 2012, is included in the general revisions of the AFM, the general revisions may be inserted in the AFM, and the TR may be removed. Accomplishment of the new flat plate installation required by paragraph (j) of this AD terminates the actions required by this paragraph;

and after the installation of new flat plates has been done, Airbus A318/A319/A320/A321 TR TR286, Issue 1.0, dated December 17, 2012, must be removed from the AFM before further flight.

(h) Retained Optional Terminating Action with Revised TR Removal Requirement

This paragraph restates the actions specified in paragraph (h) of AD 2012-26-51, Amendment 39-17312 (78 FR 1723, January 9, 2013), with a revised TR removal requirement. Modification of an airplane by replacing AoA sensor conic plates with AoA sensor flat plates, in accordance with a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, constitutes terminating action for the AFM revision required by paragraph (g) of this AD; and after the modification has been done, Airbus A318/A319/A320/A321 TR TR286, Issue 1.0, dated December 17, 2012, must be removed from the AFM before further flight, except for airplanes on which the modification has been done before the effective date of this AD. For airplanes on which the modification has been done before the effective date of this AD, Airbus A318/A319/A320/A321 TR TR286, Issue 1.0, dated December 17, 2012, must be removed from the AFM within 5 days after the effective date of this AD. Accomplishment of the actions required by paragraphs (j) and (l) of this AD terminate the actions specified in this paragraph.

(i) Retained Parts Installation Prohibition

This paragraph restates the requirements of paragraph (i) of AD 2012-26-51, Amendment 39-17312 (78 FR 1723, January 9, 2013). As of January 24, 2013 (the effective date of AD 2012-26-51), no person may install an AoA sensor conic plate in service using Airbus Mandatory Service Bulletin A320-34-1521, dated May 7, 2012; or Revision 01, dated September 12, 2012; on any airplane.

(j) New Flat Plate Installation

Within 5 months after the effective date of this AD, remove all AoA sensor conic plates having part number (P/N) F3411060200000 or P/N F3411060900000 and install AoA sensor flat plates having part numbers specified in paragraph (j)(1) or (j)(2) of this AD, except as specified in paragraph (k) of this AD. Install the AoA sensor plates in accordance with the applicable method specified in paragraph (j)(1) or (j)(2) of this AD. Accomplishment of the AoA sensor flat plate installation terminates the AFM revision required by paragraph (g) of this AD; and after accomplishing the installation, the actions specified in paragraph (l) of this AD must be done.

(1) Install P/N D3411013520200 in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A320-34-1564, including Appendix 01, dated January 25, 2013.

(2) Install P/N D3411007620000 or P/N D3411013520000, in accordance with a method approved by either the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA) (or its delegated agent).

(k) New Exception to Paragraphs (g) and (j) of this AD

An airplane on which Airbus modification 154863 (installation of AOA sensor flat plate) and modification 154864 (coating protection) have been embodied in production is not affected by the requirements of paragraph (g) or (j) of this AD, provided that, since first flight, no AoA sensor conic plate having P/N F3411060200000 or P/N F3411060900000 has been installed on that airplane.

(l) New Requirement for Removal of AFM Revision

After modification of an airplane as required by paragraph (j) of this AD, Airbus A318/A319/A320/A321 TR TR286, Issue 1.0, dated December 17, 2012, that was inserted into the Airbus A318/A319/A320/A321 AFM, as required by paragraph (g) of this AD, is no longer required and must be removed from the AFM of that airplane before further flight.

(m) New Parts Installation Prohibition

(1) For any airplane that has AoA sensor flat plates installed: As of the effective date of this AD, do not install any AoA sensor conic plate having P/N F3411060200000 or P/N F3411060900000, and do not use any AoA protection cover having P/N 98D34203003000.

(2) For any airplane that has AoA sensor conic plates installed: As of the effective date of this AD, after modification of the airplane as required by paragraph (j) of this AD, do not install any AoA sensor conic plate having P/N F3411060200000 or P/N F3411060900000, and do not use any AoA protection cover having P/N 98D34203003000.

(n) Special Flight Permits

Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the airplane can be modified (if the operator elects to do so), provided Airbus A318/A319/A320/A321 TR TR286, Issue 1.0, dated December 17, 2012, has been inserted into the Emergency Procedures of the Airbus A318/A319/A320/A321 AFM.

(o) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone (425) 227-1405; fax (425) 227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(p) Related Information

Refer to Mandatory Continuing Airworthiness Information EASA Airworthiness Directive 2013-0022, dated February 1, 2013, for related information, which can be found in the AD docket on the Internet at http://www.regulations.gov.

(q) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(3) The following service information was approved for IBR on [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(i) Airbus Mandatory Service Bulletin A320-34-1564, including Appendix 01, dated January 25, 2013.

(ii) Reserved.

(4) The following service information was approved for IBR on January 24, 2013 (78 FR 1723, January 9, 2013).

(i) Airbus A318/A319/A320/A321 Temporary Revision TR286, Issue 1.0, dated December 17, 2012, to the Airbus A318/A319/A320/A321 Airplane Flight Manual.

(ii) Reserved.

(5) For service information identified in this AD, contact Airbus, Airworthiness Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; Internet http://www.airbus.com.

(6) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(7) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Renton, Washington, on September 13, 2013.

Jeffrey E. Duven,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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